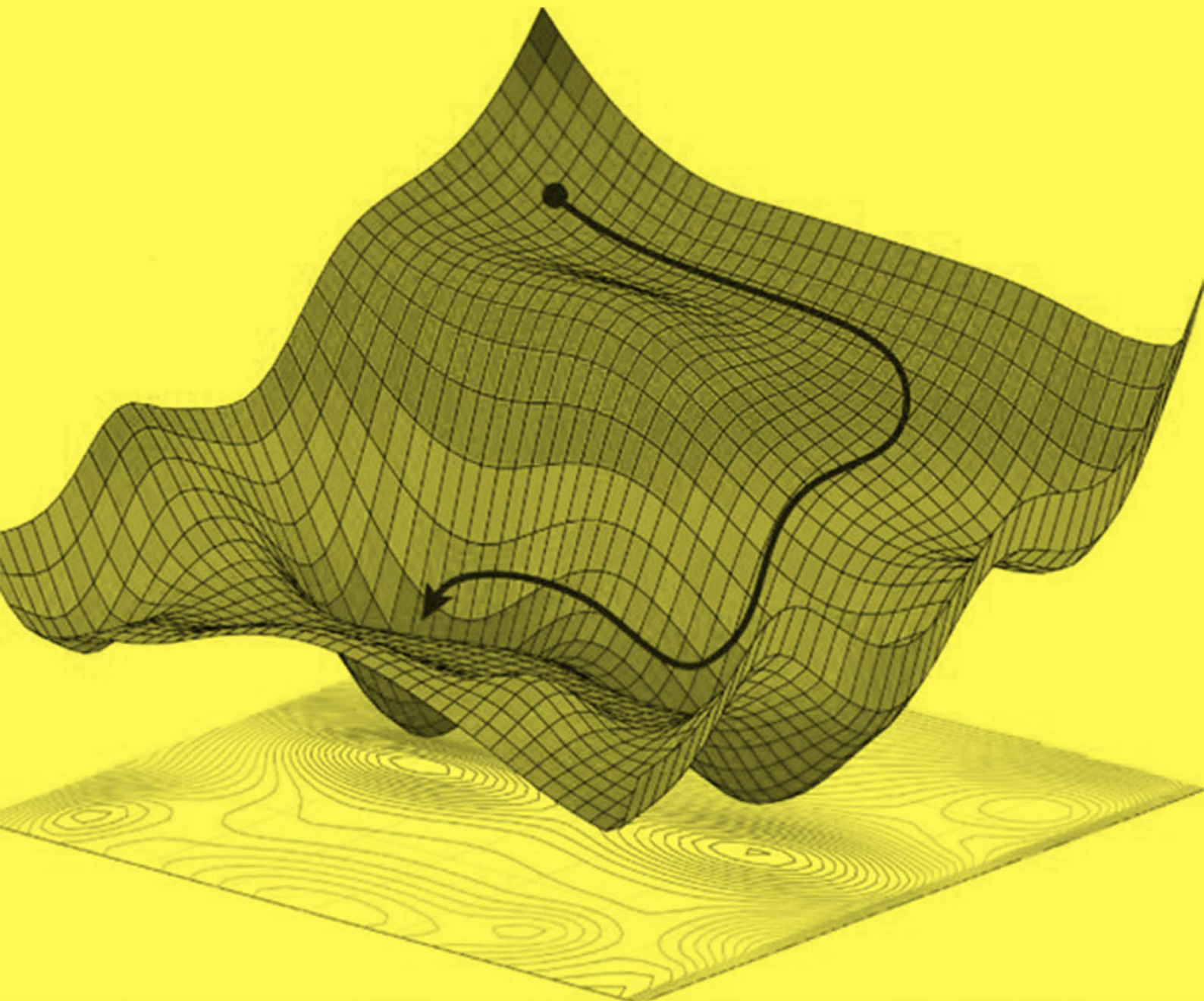




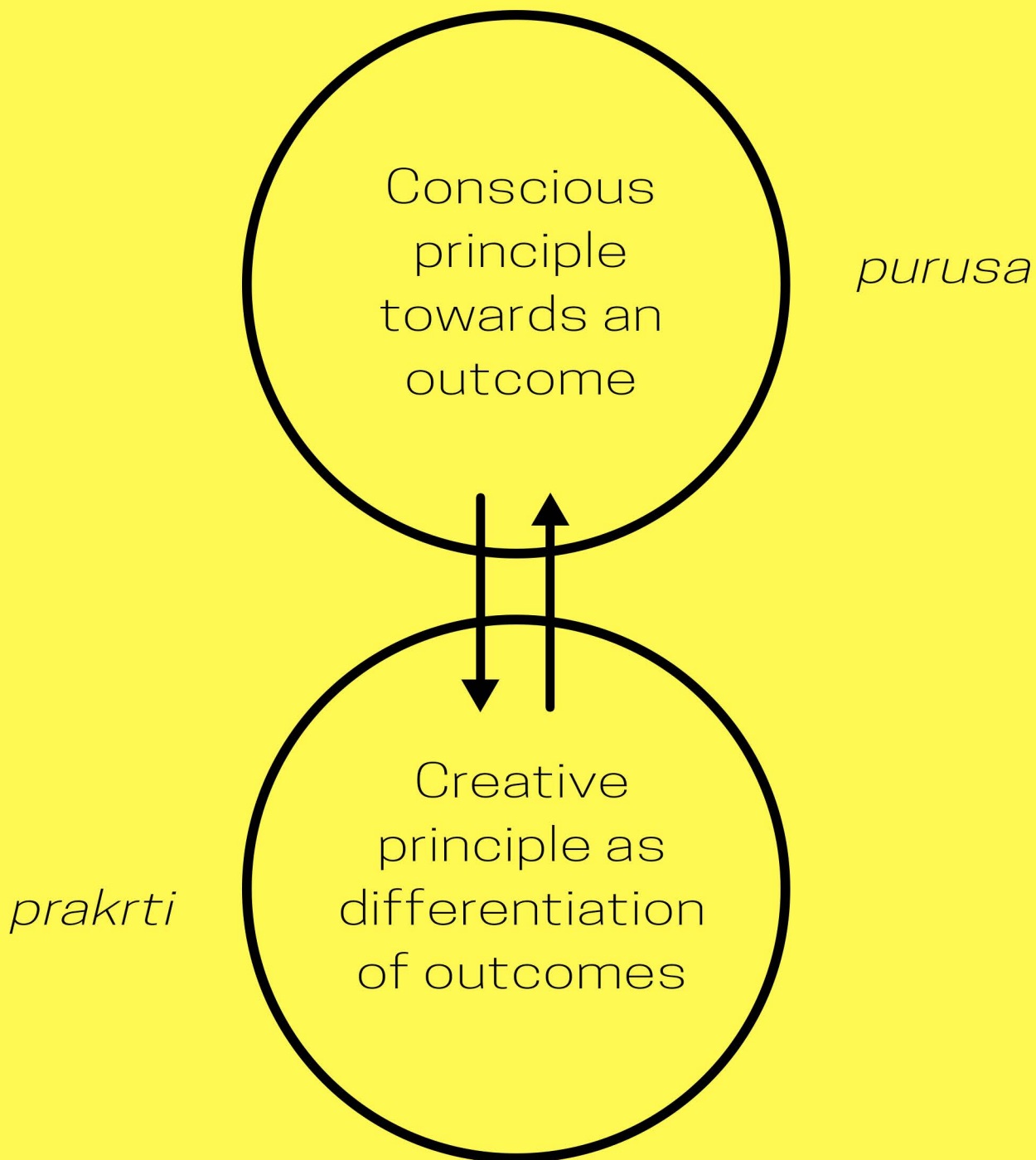
SAMKHYIC XENODESIGN

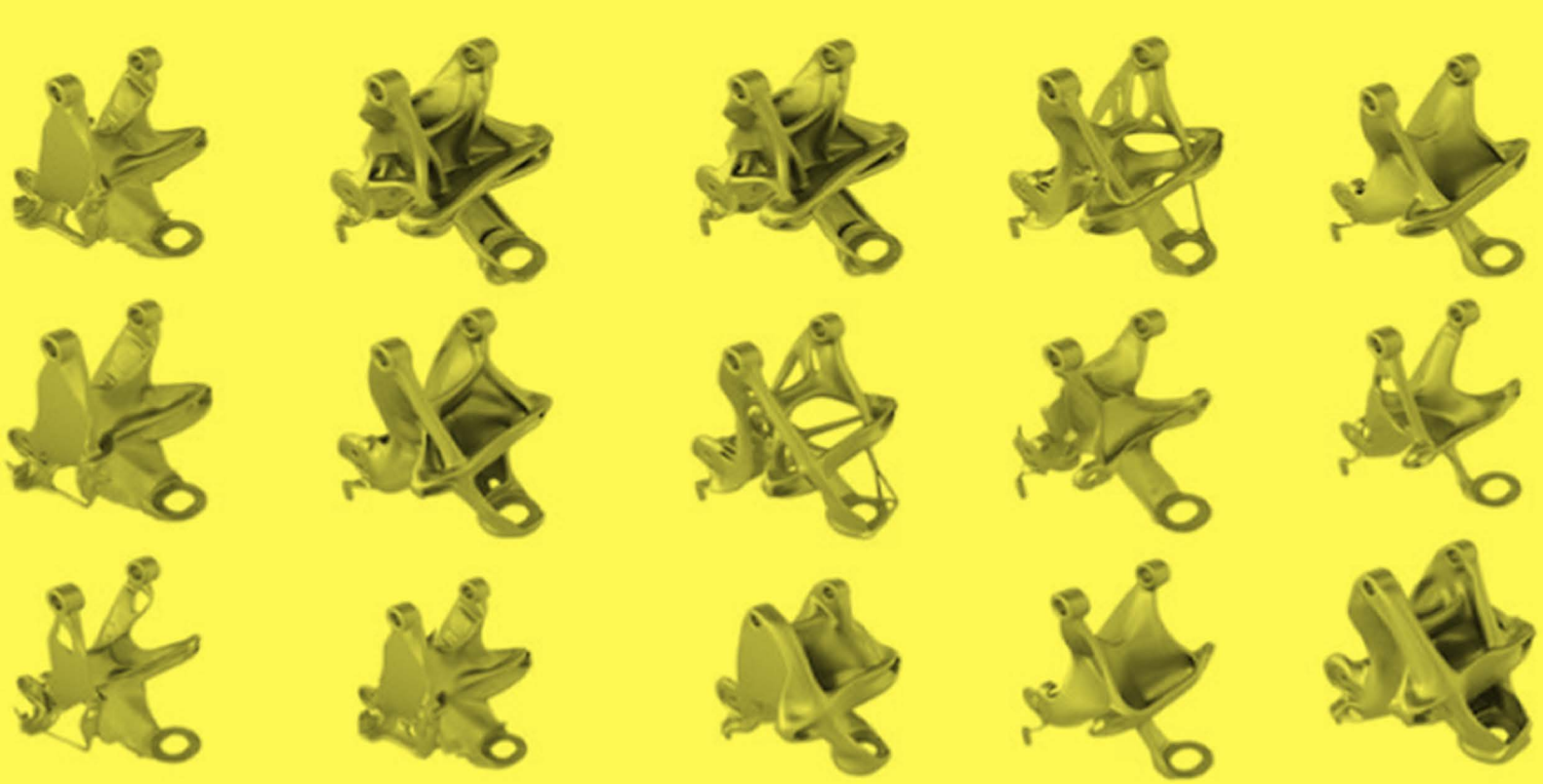


The Samkhya were an ancient group of Indian philosophers who held long drawn out debates on the nature of reality. One of their fundamental claims posits two aspects of reality to be the driving force of the universe as we know it: *Purusa* and *Prakrti*

Unlike greek-origin western beliefs that claims only humans can be intelligent and that matter is inert, the Samkhyas argued that the *Purusa*, as a conscious will beyond perception, drove the evolution of manifested intelligent space and matter, *Prakriti*

To put in terms of the original ancient analogy, imagine the prakriti to be a blind man with strong legs and the purusa to be a crippled man with powerful vision. By seating the cripple on the shoulders of the sighted, both attain direction and manifestation

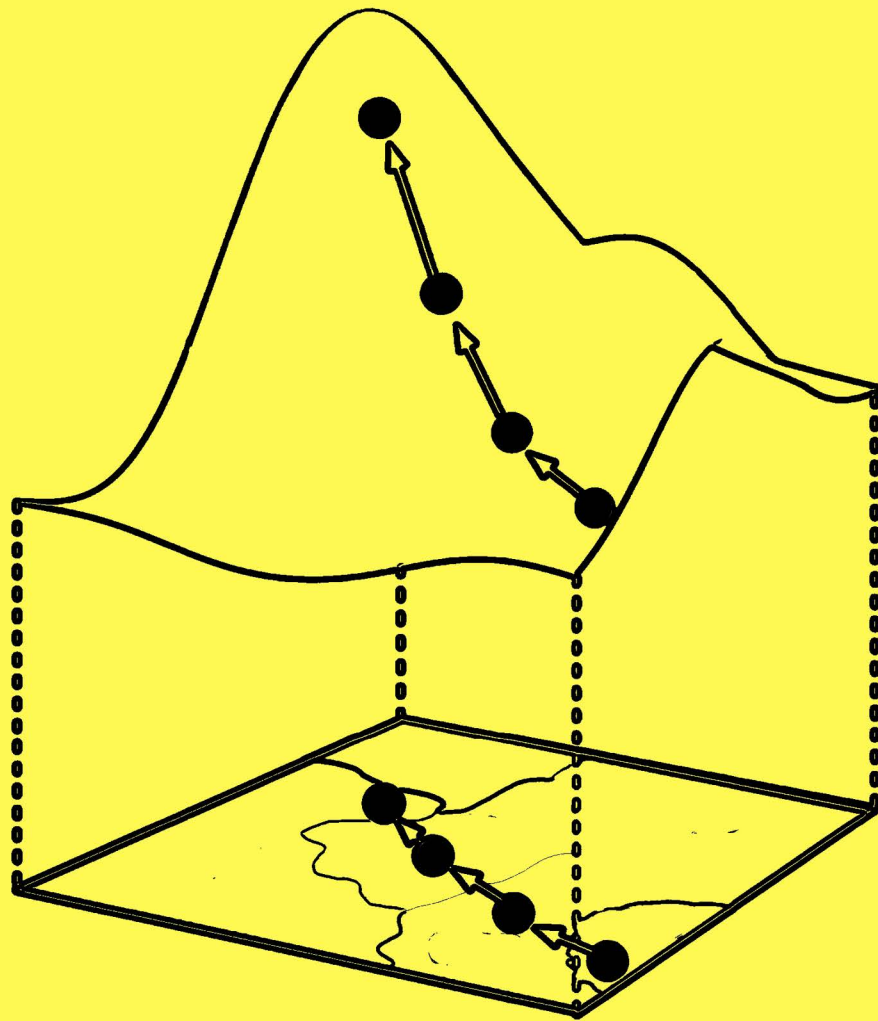




Generative design, a new design process used by architects, urban designers, industrial engineers, chip designers and game designers works quite similarly.

Using a Machine learning technique called Genetic Algorithms, Generative designers create an artificial intelligence model with a universe of design possibilities and “guide” the AI to the best design.

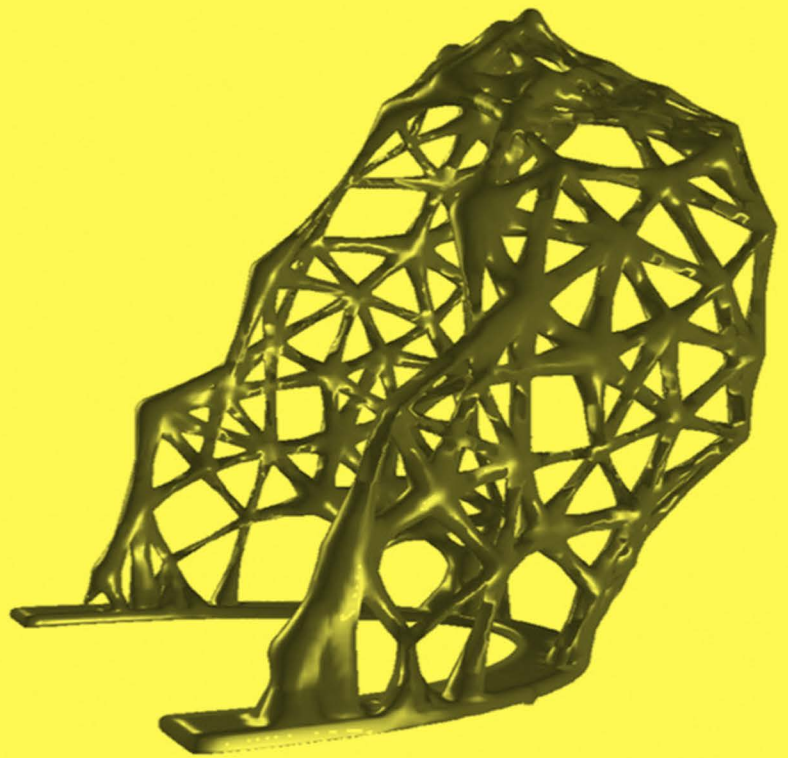
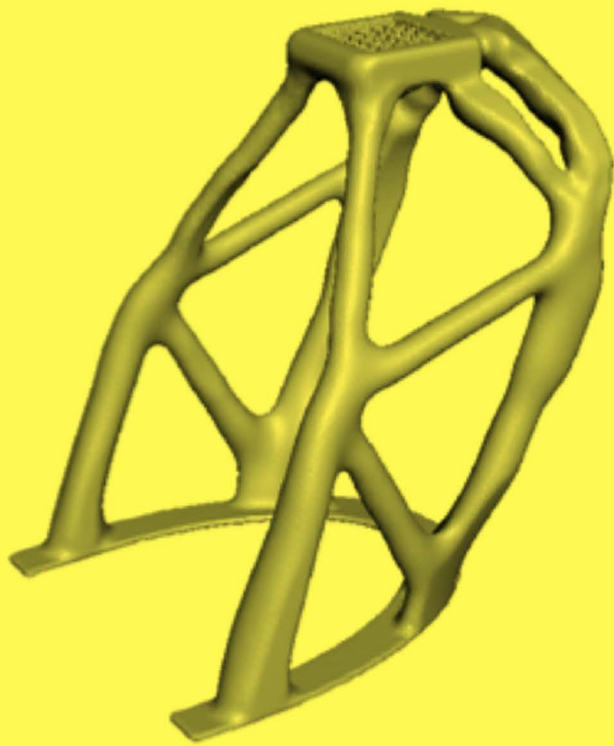
This vastly expands the potential of regular design processes.



Inside each AI model is a tiny universe called a “design space”.

The job of a generative designer is climb to the top of the mountain, where the best, most optimal design resides.

This means something interesting, however. For the first time, the final design is something completely out of the designer’s conceptualization.



Generative has its perks, being widely used in tasks regarded to be “wicked problems”, such as energy efficiency , material conservation and climate change resistant architecture. Often generative design solution look like strange “computer lifeforms” .

One antenna designed for NASA by a machine looked like an “alien anemone” yet was 50% more energy efficient than the best human design.

What generative design thus allows us to do is a completely new form of Xenodesign. Xenodesign, ‘xeno’ meaning “alien” and “unknown”, is a concept proposed by Joanna Schmeier in the MIT Journal of Design and Science, suggesting a move beyond Human centred design.

By leaning into the alien potential of generative design, like *prakrti-purusa*, we enable new forms of creative potential to not only solve the problem of “sameness” in design by creating new aesthetic cultures via this alien biology, but also solve “wicked problems” as originally defined by design legend Horst Rittel, large scale hard to solve design problems which include climate change, social alienation, energy management, future nanobiotech compounds and the likes.

DESIGN AS
THE DESIGN OF

THE ALIEN
AND
THE UNKNOWN